

REMARKS

The Applicant has reviewed and fully considered the October 31, 2008 Office Action received in the above-referenced application.

The drawings were objected to under 37 CFR 1.83(a) as failing to show every feature of the invention specified in the claims. Specifically the Office Action takes issue with the drawings depiction of the non-segmented drive ring and non-segmented backup tong housing. The Office Action claims the drawings show a segmented drive ring (element 36) as being one segment of a segmented drive ring. However element 36 is the crescent-shaped jaw group, not the drive ring. The drive ring is element 30 and is shown as the ring which surrounds the jaw group 36 in Figure 1. The specification on page 6 beginning at line 15 clearly states: "In the drive ring 30 and co-rotating therewith, are arranged to crescent-shaped jaw groups 36, only one of which is illustrated in the drawings for illustrative reasons." Page 6, lines 15-17 of the PCT application.

The Office Action also takes issue with the illustration of the backup tong housing as best seen in Figure 2. The Office Action contends the backup tong housing as seen in Figure 2 is segmented due to the fact the top cover is removed from the housing. The limitation of a non-segmented housing of the backup tongs, the term "non-segmented" means it is angularly non-segmented or a continuous circle. Those skilled in the field of rotary equipment and drilling equipment would understand this limitation to mean the backup tong housing is angularly non-segmented. This interpretation is supported by the definition from Random House Webster's College Dictionary, © 1998 (Exhibit A attached hereto) in which the term "segment" has the definition "an object, as a machine part, having the form of a segment or sector of a circle".

This interpretation of “non-segmented” is further reinforced by the context of the term in the claim, which states “encircling the pipe string with a non-segmented housing of the backup tong”. The term “non-segmented” is used to describe how the housing of the backup tongs encircle the pipe string. It is irrelevant whether a cover can be removed from the housing to access the internal parts. This is clearly the interpretation at which one skilled in the art would arrive, especially if they had reviewed the specifications and drawings.

Based on the foregoing clarifications the Applicant asserts the drawings disclose all of the elements found in the limitations as they would commonly be understood by an individual skilled in the art. The Applicant therefore respectfully requests the objection to the drawings under 37 CFR 1.83(a) be withdrawn.

Claims 3-7, 12 and 13 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Specifically the Office Action takes issue with the drawings depiction of the non-segmented drive ring. As explained above, the drive ring is element number 30 not element number 36. Figure 2 clearly shows the drive ring element 30 as being non-segmented or a continuous circle not to be confused with element 36 which is the crescent-shaped jaw group. In view of this clarification, the Applicant respectfully requests the rejections of Claims 3-7, 12 and 13 under 35 USC 112, second paragraph, be withdrawn.

Claims 3-13 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Here the Office Action takes issue with the preamble of the two independent claims, Claims 3 and 8. The preamble states that it is a method for disconnecting a pipe length however both of these claims disclose limitations which are directed towards connecting a pipe length. The claims which depend from these two independent

claims add limitations which are directed towards the disconnection of a pipe length. In order to rectify this the Applicant has amended the preamble of Claims 3 and 8 to state that the method also includes connecting the pipe length. This places the preamble in line with the interpretation that the Examiner used for his review, namely that it is a method for connecting and disconnecting a pipe length from a pipe string.

In view of these changes, the Applicant respectfully requests the rejection of Claims 3-13 under 35 USC 112, second paragraph, be withdrawn.

Claims 8-11 are rejected under 35 USC 103(a) as being unpatentable over Carlson (2003/0056623) in view of Stogner (6,505,531). In order to show a prima facie case of obviousness all of the limitations found in the claim being rejected must be present in one or more pieces of prior art. As discussed in the previous amendment Claim 8 contains the limitation of “locking the backup tongs to the one or more guide columns”. Neither Carlson nor Stogner disclose this limitation.

In attempting to find it in the cited prior art the office action points to Carlson and reasons that at “...any point during the method of connecting or disconnecting of the pipe length wherein the cog (414) is not moving to move the back-up ton and power tong relative to the guide columns, the back-up tong may be considered to be locked to the one or more guide columns by the non-moving cog.” Beginning page 6, line 6 of the October 31, 2008 Office Action. However this assumption is incorrect.

Carlson deals with a horizontal drilling machine. So when the drill string is at rest, gravitational forces will hold the backup tongs and drill string in place. Admittedly the cogs would still be engaged with the rack because they are not removably connect to one another. However the fact the cog and rack are engaged with one another is not the same as the cog being locked or fixed to

resist movement along the rack. Said another way, just because the cogs are not forcing the backup tongs and drill string forward or backward it cannot be assumed they are locked to the guide columns without some affirmative statement in the prior art that they are indeed locked.

Claim 8 also contains the limitation of “the chassis is removably connected to the one or more guide columns”. Neither Stogner nor Carlson disclose this limitation. The office action suggests it would have been obvious to one skilled in the art at the time of invention to use the hoist of Stogner to lift the Carlson device in the air reorient it and to drill vertically. Assuming for the purpose of discussion this were done. The Carlson device would still operate in the same manner with the backup tong traveling along the guide columns but not being removably connected. Thus nothing in these two pieces of prior art teach a chassis removably connected to the one or more guide columns.

Further as pointed out in an earlier amendment, Carlson and Stogner teach away from one another. Carlson is directed towards an apparatus used for horizontal directional drilling. Such device is typically used in laying underground pipelines or telecommunication fiber optics whereas Stogner deals with an oil tool used for drilling vertical oil and gas wells. As such the two pieces of prior art are unlikely to be combined.

The teachings of these two pieces of prior art are driven further apart by the fact their construction is significantly different. The vice apparatus 100 in Carlson is supported from underneath by a thrust frame 50. Stogner on the other hand is adjusted from above using a hoist and hoisting harness 120. These basic differences in their construction and operation cause these two pieces of prior art to teach away from one another thus preventing them from being readily combined.

In addition to teaching away from one another Carlson and Stogner also teach away from the present invention in that the present invention relies upon movement along guide columns removably connected to the chassis. This differs significantly from the teaching of Stogner which uses a hoist from above to lift the apparatus. Carlson does not adjust vertically. Rather it moves horizontal along its thrust frame.

Claims 9-11 all depend from Claim 8 and contain all of the limitations found in Claim 8. The forgoing discussion would also apply to these dependent claims. For the reasons outlined above the Applicant respectfully request the rejection of Claims 8-11 under 35 USC 103(a) as being unpatentable over Carlson in view of Stogner be withdrawn.

Claims 3-7, 12 and 13 are rejected under 35 USC 103(a) as being unpatentable over Carlson (2003/0056623) in view of Stogner (6,505,531) as applied to Claim 8 and further in view of Wilms (3,838,613). Claim 3 has been amended to include the limitation of the non-segmented drive of the power tong carrying one or more crescent-shaped jaws. This limitation is not found in the cited prior art. These jaws provide the benefit of being easily replaceable and adaptable for gripping objects of various diameters. They also avoid the disadvantages of prior art power tongs without a radial opening See page 3, lines 11-17 of the original application.

The advantages provided by the crescent-shaped jaws provide a solution to a long felt need in the industry and are a primary reason behind the wide acceptance in the market place of the present invention. As evidence of its market acceptance and the present invention providing a solution to long felt needs in the oil industry Exhibit B contains two articles from Norwegian papers. The first article entitled “Local Iron-Roughneck From Sola (the Stavanger, Norway airport) to the Pacific Ocean” is from the *Stavanger Aftenblad*. The article explains how ExxonMobil ordered the

37 ton piece of equipment according to the present invention. They then airlifted it from Stavanger, Norway to the Russian Island of Sakhalin in the northern Pacific Ocean.

The second article is from another Norwegian newspaper, *Agder*. It was written in conjunction with another piece of equipment according to the present invention purchased by Shell and airlifted to Las Palmas. The costs and efforts under taken by these companies to move this equipment as quickly as possible to the oil fields speaks to the long felt need in the oil industry for the present invention. Had there not been a significant need these companies would not have gone to the expense of airlifting them to their drilling operations.

Further the cited prior art teaches away from one another and is not readily combinable. Carlson is directed towards a horizontal or directional drilling machine typically used to install underground pipelines and fiber optic cables. Stogner and Wilms are directed towards drilling oil or gas wells. These two industries typically never cross one another. Stogner and Wilms differ further in that they could not be readily combined due to their structures.

Claims 4-7 all depend from Claim 3. Therefore the foregoing reasons for allowance of Claim 3 would equally apply to these dependent claims.

Claims 12 and 13 both depend indirectly from Claim 8. As such all of the limitations of Claim 8 are included in Claims 12 and 13. The cited prior art fails to disclose all of the limitations of Claims 12 and 13. Just like Carlson and Stogner, Wilms fails to disclose the limitations of the locking the back-up tong to the one or more guide columns and the chassis being removably connected to the one or more guide columns. Further as discussed above Carlson, Stogner and Wilms all teach away from one another.

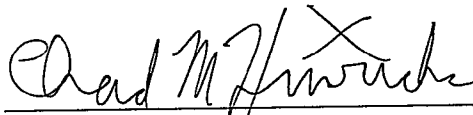
For the reasons outlined above the Applicant respectfully request the rejection of Claims 3-7, 12 and 13 under 35 USC 103(a) as being unpatentable over Carlson in view of Stogner and Wilms be withdrawn.

The Applicant believes they have addressed all the outstanding issues and that the application is in condition for allowance and therefore respectfully request such.

The Applicant has filed herewith a Request for Continued Examination along with this Amendment to ensure the entry and consideration of this Amendment. Further, please debit additional fees required by this paper or credit any overpayment to Deposit Account No. 50-1971.

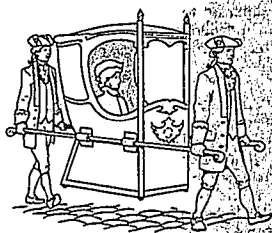
Should any other amendments be necessary to place the application in condition for a Notice of Allowance, Examiner Muller is invited to call the undersigned at the below noted telephone number.

Respectfully submitted,



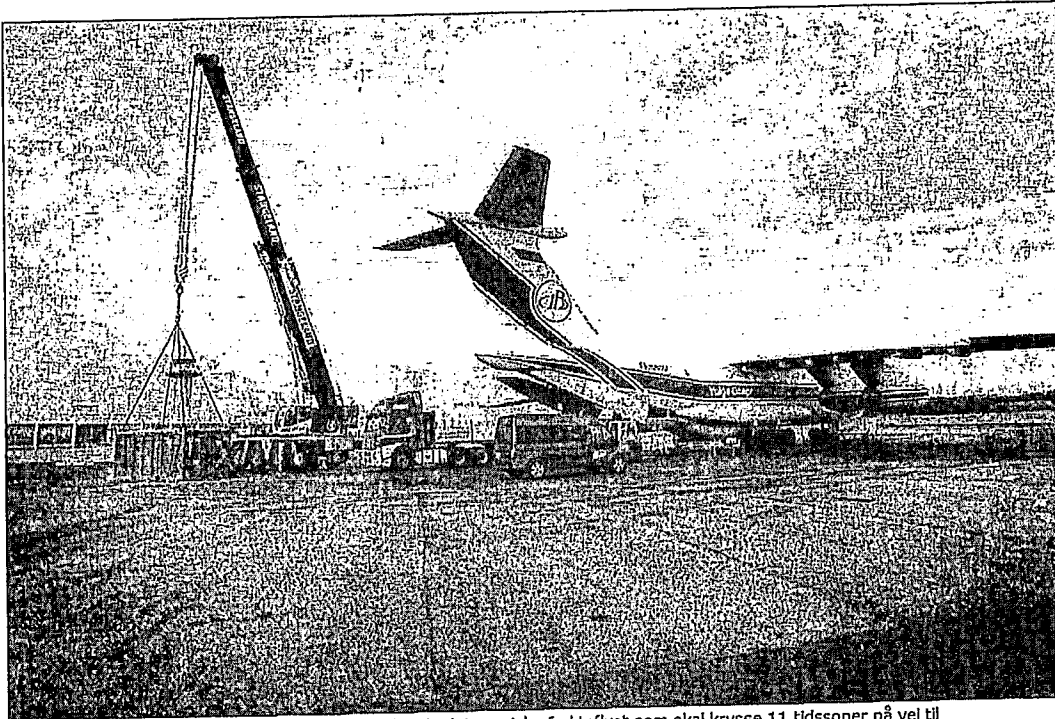
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EXHIBIT A



seg•re•ga•tion (seg'ri gā'shən), *n.* 1. the act or practice of segregating

EXHIBIT B



Konteinere med 37 tonn boreverktøy lastes om bord i det russiske fraktflyet som skal krysse 11 tidssoner på vei til Sakhalin i øst. (Foto: Kenneth Bjerga)

Lokal oljearbeider av jern fra Sola til Stillehavet

Et plattformverktøy bygd i Flekkefjord skal gjøre oljeutvinning fra nordlige Stillehavet mer effektiv.

Ulf Rosenberg

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Lørdag ettermiddag ble tre svære konteinere dyttet inn i baken på det russiske fraktflyet. Om kort tid vil verktøyet, utviklet i Kristiansand, være i sving med boring etter mer olje utenfor den russiske øya Sakhalin, nord i Stillehavet.

ExxonMobil har bestilt verktøyet som vi kaller UniTong fra oss, sier daglig leder i V-Tech, Terje Berheim.

Jernmann

Han beskriver det som en Iron-Roughneck. Altså en automatisert boredekksarbeider, som gjør alle de farlige og svært ulike operasjonene med å koble på nye rør etter hvert som brønnen blir dypere, eller å koble av rør når man skal trekke borestrengen ut av brønnen. For eksempel.

– Hele poenget er at med dette utstyret kan vi gjøre alle slike operasjoner med ett verktøy, sier Berheim, stolt av at verdens største oljeselskap, ExxonMobil, har kjøpt utstyret til over 20 millioner kroner.

Langtur

Med 37 tonns vekt nærmer deg seg makslast før flyet som ruvet på flyplassen på Sola hele lørdag. Vingspennet er 50 meter.

Iljusjin Il-76-flyet skal mellomlande på Tolmatsjovo-lufthavnen utenfor Novosibirsk før det lossrer sin verdifulle last i Sakhalin-hovedstaden Juzjno. Da gjenstår en 48 timers trailertransport før utstyret skal installeres på plattformen i nord.

Det dreier seg om en landrigg som borer opptil 11 kilometer lange horisontale brønner ut til reservoaret under havbunnen.

– Hvorfor flyfrakt – skip er jo billigere?

– Nå har vi jobbet dag og natt for å få verktøyet ferdig tre uker før tiden. Da lønner det seg å fly det bort, for det koster å ha boreriggen liggende uvelkommen, sier Berheim.

Bedriften sender bort et åtte manns installasjonslag fra Stavanger og Kristiansand som ut januar skal hjelpe riggen i gang med utstyret.

Seks slike verktøy har bedriften levert. To er i bestilling. Og forespørslene øker. – Vi ser lyst på framtiden selv om oljeprisen har sunket. For med vårt utstyr sparer de penger og sikkerheten blir bedre, sier Berheim. Bedriften har også sikret seg rammeavtale med StatoilHydro.

Lokalt

V-Tech ligger i Kristiansand, men er kjøpt av Weatherford som har sitt norske hovedkontor på Forus. Verktøyet er satt sammen i Flekkefjord, ved Andersen Mek. Verksted AS. Komponentene kommer fra flere steder; for eksempel fra Technor i Stavanger som har levert kabinettene til styresystemet.

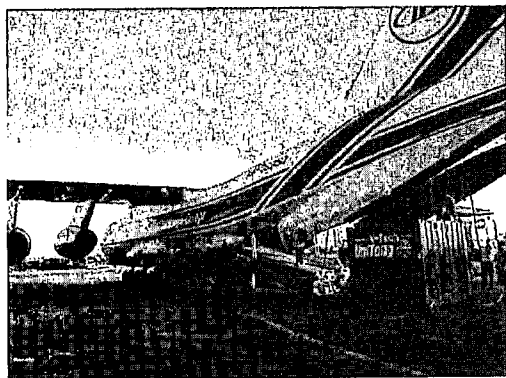


Foto: Shell/ V-Tech ved Eivind Figved.) DYREBAR LAST: Unitong maskinen lastes inn i et russisk transportfly av typen Ilyushin IL-76 (

← NOTE Unitong

Uvanlig transport fra Flekkefjord

Flekkfjordprodusert maskin til Las Palmas med russisk kjempfly.

AV SVEIN LØVLAND

Selskapet V-Tech AS i Kristiansand bruker AMV Offshore AS i Flekkefjord til å produsere sin oppfinnelse Unitong. Unitong er en fjernoperert maskin som står på boredekket på oljeplattformer og kobler sammen alle rør til brønn- operasjoner.

— Vi har solgt en Unitong til

Shell/Ocean Rig. Den skal installeres ombord på riggen Leiv Eiriksson som for tiden ligger i Las Palmas. Riggen skal slepes og settes i drift utenfor Shetland, forklarer gjelendingen som er logistikkansvarlig i V-Tech, Kjetil Sørvig til Agder.



Unitong: Maskinen produseres ved AMV Offshore i Svegeskogen i Flekkefjord for V-Tech AS i Kristiansand.

FOTO: SHELL/ V-TECH VED EIVIND FIGVED.

Fra Flekkefjord til Las Palmas

— Maskinen ble fraktet med trailer fra Flekkefjord tidlig denne uken. Vi hadde besluttet at Unitong single column som har en vekt på omkring 12,5 tonn, skulle sendes med flyfrakt til Las Palmas. Størrelsen på maskinen krevde en noe uvanlig flytype. Det ble derfor bestilt et russisk transportfly av typen Ilyushin IL-76, forteller Sørvig.

— Det spesielle flyet kom direkte fra militært oppdrag i Øst-Europa. Flyet landet på Sola rundt lunsjtider tirsdag, og hadde avgang natt til onsdag. Det møtte frem flere flyentusiastene på flyplassen bare for å se dette spesielle flyet, sier Sørvig.



SVEGESKOGEN: Unitong maskinen hentes hos AMV i Svegeskogen i Flekkefjord

(FOTO: SHELL/ V-TECH VED EIVIND FIGVED.)



RUSSISK KJEMPE: Russisk transportfly av typen Ilyushin IL-76

(FOTO: SHELL/ V-TECH VED EIVIND FIGVED.)

Fornøyd med Andersen

— Vi er strålende fornøyd med produksjonen hos AMV Offshore AS. De leverer veldig god kvalitet, og er en god samarbeidspartner. Kundene er også meget godt fornøyd, forsikrer Sørvig.

— Det er morsomt at Shell nå kjøpte prototypen av denne typen Unitong. Det betyr mye for det videre salget av disse maskinene som både sparer mannskap og bedrer sikkerheten på oljeplattformene.

— Dette kan bli et eventyr både for oss i V-Tech og for AMV Offshore. I 2008 regner vi med at AMV vil kunne bygge 16-18 maskiner. Med sin nye produksjonshall og etterhvert utvidet stab kan dette fortsette å vokse, tror Sørvig.